

# KR6™

LED Architectural Downlight – Round 6" Aperture

## Product Description

The KR6™ LED specification downlight features Cree TrueWhite® Technology and delivers beautiful, high-quality light with efficacy up to 65 lumens per watt. Designed for new construction applications, the KR Series is available in variety of color temperatures, with high-quality anodized aluminum reflector finishes, dimmable product options, and sloped ceiling adaptor options, making it suitable for a wide variety of applications.

## Performance Summary

Utilizes Cree TrueWhite® Technology
Made in the U.S.A. of U.S. and imported parts
<b>Delivered Light Output*:</b> 9L: 660Lumens(L), 13L: 1050L, 20L: 1700L, 30L: 2650L
<b>Input Power:</b> KR6-9L: 13 watts(W), KR6-13L: 18W, KR6-20L: 30W, KR6-30L: 39W
<b>CRI:</b> 90
<b>CCT:</b> 2700K , 3000K , 3500K, 4000K
<b>Dimming:</b> 5% Triac Dimming, 10% 0/1-10V Dimming** 1% Lutron EcoSystem® Dimming**, 1% Lutron® Forward Phase Dimming**
<b>Lifetime:</b> Designed to last 50,000 hours
<b>Warranty:</b> 10 years†

\* Delivered lumen output is typical when using a SSGC type reflector. See Application Performance Chart under Photometry for more detail.

\*\* 0/1-10V for 120V or 277V on 20L and 30L models, Triac for 120V on 9L and 13L models Lutron dimming for 13L, 20L, and 30L models

† See www.cree.com/lighting for warranty terms.

## Ordering Information - Housing

Example: KR6-9L-27K-120V

KR6					
Series	Size	Source Lumen Output	CCT	Voltage	Control Options
KR	6 6 inch	9L 850 Lumens	35K 3500K	120V 120 Volts	10V Triac Dimming* 0/1-10V Dimming* LES Lutron EcoSystem Dimming* LFP Lutron Forward Phase Dimming*
		13L 1250 Lumens	30K 3000K		
		20L 2000 Lumens	27K 2700K	277V 277 Volts	
		30L 3000 Lumens	40K 4000K		

\*Triac available on 9L and 13L, 10V available on 20L and 30L; LES, LFP available on 13L, 20L, and 30L

## Ordering Information - Reflector

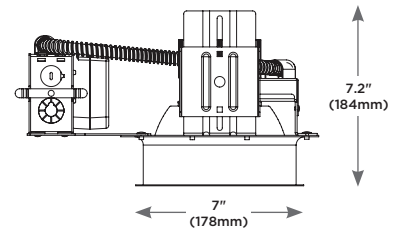
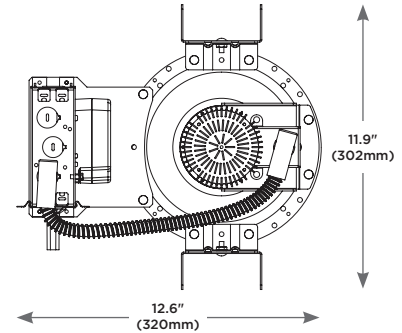
Example: KR6T-SSGC-FF

KR6T				
Series	Reflector Finish	Flange Finish	Options	
KR6T	SSGC Soft Satin Glow, Clear	FF Matching WF White Paint	WW Wall Wash	
	SSGCG Soft Satin Glow, Champagne Gold			

## Ordering Information-Sloped Ceiling Adaptor

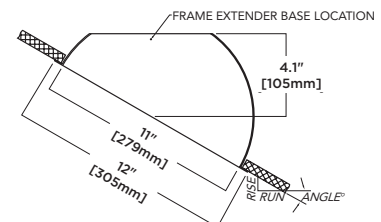
Example: KRKS605WW

KRKS6		WW
Part	Adaptor Angle	Option
KRKS6	05 thru 35 (order in 5 degree increments)	WW Required



## Accessories:

6" Sloped Ceiling Adaptor



Rev. Date 09/12/2013



## Product Specifications

### CREE TRUEWHITE TECHNOLOGY

Cree TrueWhite® technology begins with the highest performing commercially available LEDs. Cree TrueWhite® Technology mixes the light from red and unsaturated yellow LEDs to create beautiful, warm, white light. This patented approach enables color management to preserve high color consistency over the life of the product. Cree TrueWhite® Technology also enables a CRI of at least 90 while maintaining high luminous efficacy — a no compromise solution.

### CONSTRUCTION & MATERIALS

- Initial color within a 3-step MacAdam Ellipse.
- Low brightness parabolic spun Alzak aluminum cone, 0.06" (2mm) thick with polished radius and continuous self-flange.
- Soft Satin Glow Clear finish, standard.
- 2" (51mm) aperture throat to accommodate all standard and extra-thick ceilings and provide flexibility in mounting within grid.
- Provided with quick mounting brackets for optional carrying channels.
- Light engine, optics, and driver accessible from below ceiling.

### ELECTRICAL SYSTEM

- **Input Voltage:** 120 or 277V
- 5%-100% Triac dimming standard on 120V (9L and 13L models)
- 10% - 100% 0/1-10V dimming standard (20L and 30L models)
- 1% - 100% Lutron EcoSystem and Forward Phase dimming available on 13L, 20L, and 30L models. Consult Lutron for compatible dimmers.
- **Power Factor:** >0.9

### REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed® for thru-wiring 8#12AWG-90°C and damp location.
- RoHS compliant.
- Thermally protected.
- Meets Buy American requirements within ARRA. Consult factory for Buy American compliance with Lutron dimming options.
- EnergyStar Qualified with Triac or 0-10V dimming options (except 20L models at 277V). Other models (using LES and LFP) are pending qualification.

## Installation

- Recommended ceiling cutout 6.5" (165mm)

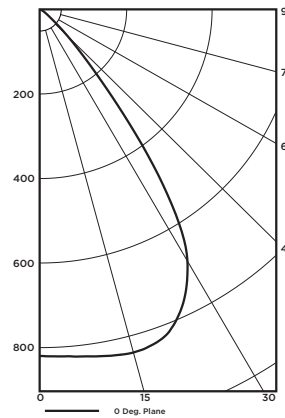


**Note:** 30L versions require marked spacing: 24" (600mm) X 12" (300mm) X 1/2" (12mm). (24" [600mm] luminaire to luminaire, 12" (300mm) luminaire to side wall, 1/2" (12mm) above luminaire.

## Photometry

All published luminaire photometric testing performed to IESNA LM-79-2008 standards.

### Soft Satin Reflector



### Intensity (Candlepower) Summary

Angle	Mean CP
0°	820
5°	824
15°	840
25°	778
35°	478
45°	101
55°	22
65°	8
75°	3
85°	0
90°	0

**LTL Test Report #:** 30142  
**KR6-13L-27K-120V (SSGC-WF)**  
**Initial Delivered Lumens:** 1074  
**Efficacy:** 61.0 Lm/W  
**S/M:** 1.2

### Cone of Light

Distance from Workplane	Footcandles	Beam Diameter
6'	21	7.2'
8'	12	9.5'
10'	8	11.5'
12'	5	14.6'
14'	4	16.3'

### Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	671	62.4%
0-40	959	89.3%
0-60	1063	99.0%
0-90	1074	100%

### Application Performance

Lumen Output	Multiplier
9L	0.68
20L	1.60
30L	2.40

Testing represents 13L output models. To estimate performance for other output models, use the Application Performance chart above. For exact photometric data please reference our available IES and LM-79 test results at [www.cree.com/lighting/krseries](http://www.cree.com/lighting/krseries)

## Application Reference

Open Space					
Spacing	Lumens	Wattage	LPW	w/ft²	Average FC
4 x 4	1074	17.6	61	1.06	68
6 x 6				0.49	31
8 x 8				0.26	17
10 x 10				0.18	12

10' Ceiling, 80/50/20 Reflectances, 2.5 workplane.  
 LLF: 1.0 Initial. Open Space: 50' x 40' x 10'

Corridor					
Spacing	Lumens	Wattage	LPW	w/ft²	Average FC
4' on Center	1074	17.6	61	0.73	28
6' on Center				0.50	19
8' on Center				0.35	14
10' on Center				0.29	11

10' Ceiling, 80/20/50 Reflectances, Light levels on the ground.  
 LLF: 1.0 Initial. Corridor: 6' Wide x 100' Long

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